



U.S. Department of Energy
Office of River Protection

P.O. Box 450, MSIN H6-60
Richland, Washington 99352

0073773

AUG 23 2007

07-ESQ-133

Ms. Jane A. Hedges, Program Manager
Nuclear Waste Program
State of Washington
Department of Ecology
3100 Port of Benton Blvd.
Richland, Washington 99354

RECEIVED
AUG 24 2007

EDMC

Dear Ms. Hedges:

SUBMITTAL OF HANFORD FACILITY RESOURCE CONSERVATION AND RECOVERY
ACT (RCRA) PERMIT MODIFICATION NOTIFICATION FORM 24590-LAW-PCN-ENV-
07-005

Reference: WA7890008967, "Dangerous Waste Portion of the Hanford Facility Resource
Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of
Dangerous Waste, Part III, Operating Unit 10, 'Waste Treatment and
Immobilization Plant.'"

This letter submits Hanford Facility RCRA Permit Modification Notification Form 24590-LAW-
PCN-ENV-07-005 (Attachment 1) for the Washington State Department of Ecology (Ecology)
review and approval. The form describes a requested Class 1 modification to the Reference. A
Bechtel National, Inc. certification statement is provided in Attachment 2.

Modification Form 24590-LAW-PCN-ENV-07-005, updates the Process Flow Diagram (PFD)
for Low-Activity Waste (LAW) Ammonia and Secondary Offgas System (24590-LAW-M5-
V17T-P0010) in Appendix 9.1 of the Reference. Revision 1 of this PFD was stamped and
submitted to Ecology for approval in Permit Change Notice (PCN) 24590-LAW-PCN-ENV-06-
009. Revision 1 was rejected by Ecology on February 2, 2007, because of issues associated with
ghosting. As such, Revision 2 is included with this PCN, and the revision number of this PFD in
the permit will go from Revision 0 to Revision 2.

If you have any questions, please contact me, or your staff may contact Lori A. Huffman, Office
of Environmental Safety and Quality, (509) 376-0104.

Sincerely,

Shirley J. Olinger, Acting Manager
Office of River Protection

ESQ:LAH

Attachments: (2)

cc: See page 2

Ms. Jane A. Hedges
07-ESQ-133

-2-

AUG 23 2007

cc w/attachs:

Administrative Record
BNI Correspondence
Environmental Portal, LMSI

cc electronic:

W. S. Elkins, BNI
B. G. Erlandson, BNI
P. A. Fisher, BNI
J. S. Hill, BNI
S. Murdock, BNI
P. Peistrup, BNI
D. Robertson, BNI
B. Becker-Khaleel, Ecology (1 hard copy)
E. A. Fredenburg, Ecology
T. Gao, Ecology
A. A. Hamar, Ecology
S. A. Thompson, FHI
A. C. McKarns, RL
D. J. Sommer, SCS

cc w/o attachs:

D. A. Klein, BNI
J. Cox, CTUIR
S. Harris, CTUIR
L. Cusack, Ecology
S. L. Dahl, Ecology
G. P. Davis, Ecology
G. Bohnee, NPT
K. Niles, Oregon Energy
R. Jim, YN

Attachment 1
07-ESQ-133

Hanford Facility RCRA Permit Modification Notification
Form 24590-LAW-PCN-ENV-07-005

Quarter Ending September 30,
2007

24590-LAW-PCN-ENV-07-005


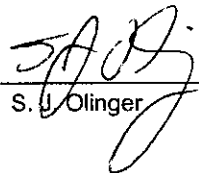
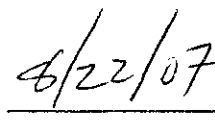
Hanford Facility RCRA Permit Modification Notification Form**Part III, Operating Unit 10****Waste Treatment and Immobilization Plant**

Index

Page 2 of 2: Hanford Facility RCRA Permit, Operating Unit 10, Waste Treatment and Immobilization Plant
Update LAW Vitrification Building Process Flow Diagram - LAW Vitrification Ammonia and Secondary Offgas
System (24590-LAW-M5-V17T-P0010) in Appendix 9.1 of the Dangerous Waste Permit

Submitted by Co-Operator:

Reviewed by ORP Program Office:


D. A. Klein
Date
S. J. Olinger
Date

Quarter Ending September 30,
2007

24590-LAW-PCN-ENV-07-005

Hanford Facility RCRA Permit Modification Notification Form														
Unit: Waste Treatment and Immobilization Plant		Permit Part & Chapter: Part III, Operating Unit 10												
<u>Description of Modification:</u> The purpose of this Class 1 modification is to update the Process Flow (PFD) for the LAW Ammonia and Secondary Offgas System (24590-LAW-M5-V17T-P0010). The following permit PFD is being submitted to replace the PFD currently in Appendix 9.1.														
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="4" style="padding: 2px;">Appendix 9.1</td> </tr> <tr> <td style="width: 15%; padding: 2px;">Replace:</td> <td style="width: 35%; padding: 2px;">24590-LAW-M5-V17T-P0010, Rev. 0</td> <td style="width: 15%; padding: 2px;">With:</td> <td style="width: 35%; padding: 2px;">24590-LAW-M5-V17T-P0010, Rev. 2</td> </tr> </table>					Appendix 9.1				Replace:	24590-LAW-M5-V17T-P0010, Rev. 0	With:	24590-LAW-M5-V17T-P0010, Rev. 2		
Appendix 9.1														
Replace:	24590-LAW-M5-V17T-P0010, Rev. 0	With:	24590-LAW-M5-V17T-P0010, Rev. 2											
The referenced PFD is a complete revisions. It incorporates changes provided in applicable document change forms (e.g., DCN, SCN, SDDR, FCN, FCR, etc.) and changes associated with the resolution to comments on change documents since the issuance of the last revision of the permitted drawing. This modification requests Ecology approval and incorporation into the permit, the specific changes to these P&IDs that are indicated by note 14, clouds, and revision triangles. Revisions are the result of ongoing design changes. The following identifies the significant types of changes on the attached drawings.														
<ul style="list-style-type: none"> Revised numbering and nomenclature for Ammonia Product Storage Vessels (AMR) throughout the drawing Corrected document number for "Process Flow Diagram Legend and Symbols" in the References section. Added flow indicators to the HEPA configuration. Revised numbering of LAW Secondary Offgas Vessel Vent Process System (LVP) HEPA filters. Revised offsheet connector labels Revised ammonia vaporization heater plant item numbers 														
The following is a list of outstanding change documents that have not been incorporated into this modification: None														
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 45%; padding: 2px;">WAC 173-303-830 Modification Class: ^{1 2}</td> <td style="width: 10%; padding: 2px;">Class 1</td> <td style="width: 10%; padding: 2px;">Class ¹1</td> <td style="width: 10%; padding: 2px;">Class 2</td> <td style="width: 15%; padding: 2px;">Class 3</td> </tr> <tr> <td style="padding: 2px;">Please mark the Modification Class:</td> <td style="text-align: center; padding: 2px;">x</td> <td></td> <td></td> <td></td> </tr> </table>					WAC 173-303-830 Modification Class: ^{1 2}	Class 1	Class ¹ 1	Class 2	Class 3	Please mark the Modification Class:	x			
WAC 173-303-830 Modification Class: ^{1 2}	Class 1	Class ¹ 1	Class 2	Class 3										
Please mark the Modification Class:	x													
Enter Relevant WAC 173-303-830, Appendix I Modification citation number: A.1. & A.3. Enter wording of WAC 173-303-830, Appendix I Modification citation: A.1. Administrative and informational changes A.3. Equipment replacement or upgrading with functionally equivalent components (e.g., pipes, valves, pumps, conveyors, controls)														
Modification Approved: <input type="checkbox"/> Yes <input type="checkbox"/> No (state reason for denial) <u>Reason for denial:</u> <div style="border: 1px solid black; height: 40px; width: 100%; margin-top: 5px;"></div>			Reviewed by Ecology: <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 60%;">B. Becker-Khaleel</div> <div style="width: 35%;">Date</div> </div>											

¹ Class 1 modifications requiring prior Agency approval.

² If the proposed modification does not match any modification listed in WAC 173-303-830 Appendix I, then the proposed modification should automatically be given a Class 3 status. This status may be maintained by the Department of Ecology, or down graded to a Class '1, if applicable.

PLANT ITEM NUMBER
DESCRIPTIONLVP-HTR-00001A/B
LAW MELTERS
OFFGAS HEPA PREHEATERSLVP-HEPA-00001A/B
LAW MELTER
OFFGAS
HEPALVP-HEPA-00003A
LAW MELTER
OFFGAS
HEPAAMR-VSL-00003/4
AMMONIA
HOLDING
VESSELLVP-HEPA-00002A/B
LAW MELTER
OFFGAS
HEPAAMR-VPR-00002/3
AMMONIA
VAPORIZATION
HEATERLVP-EXHR-00001A/B/C
LAW MELTER
OFFGAS
EXHAUSTERS

NOTES:

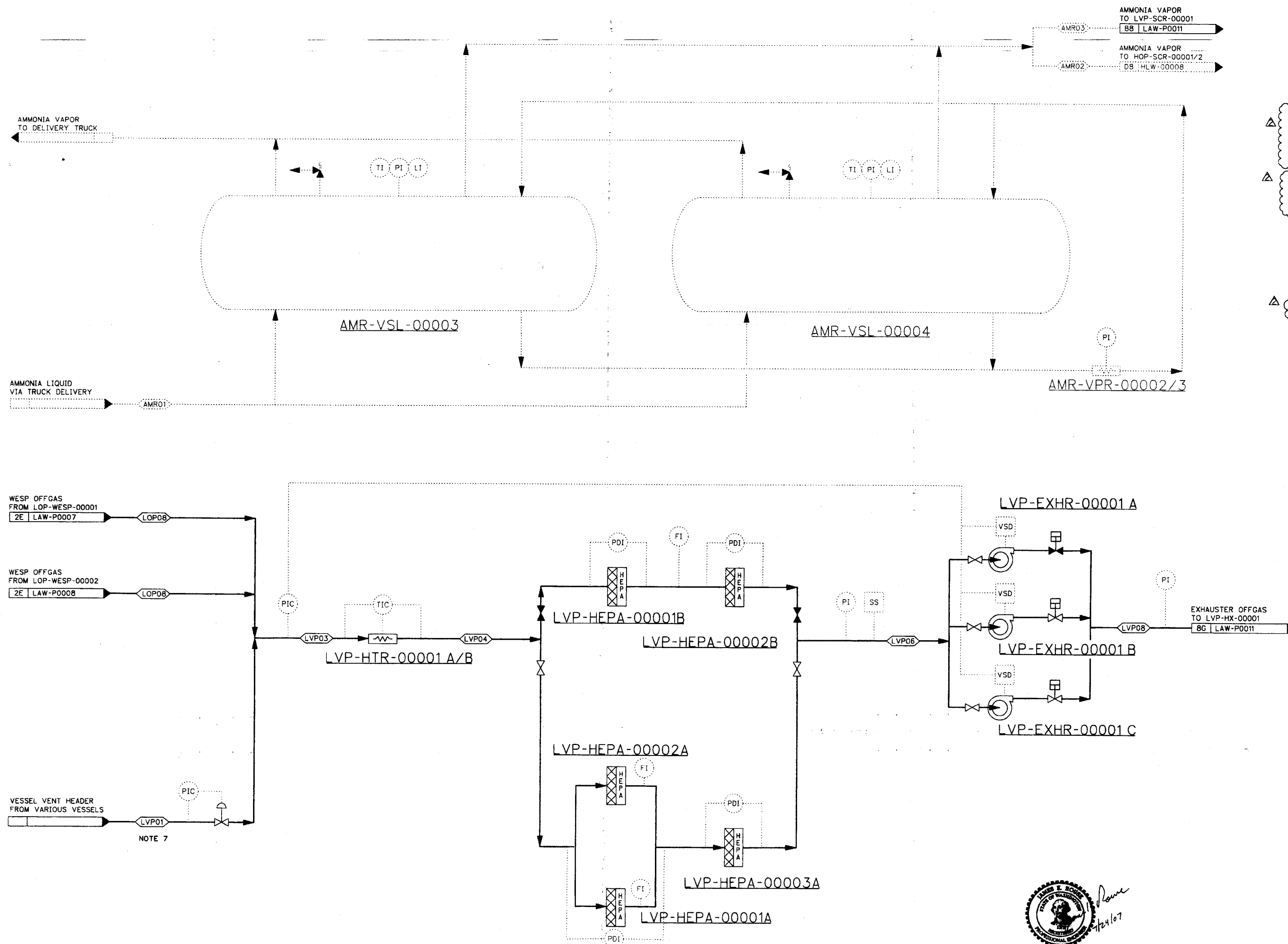
- (DELETED)
- MAJOR INDICATION AND CONTROL INSTRUMENTATION ONLY SHOWN
- VALVES SHOWN ONLY TO INDICATE PROCESS INTENT
- (DELETED)
- (DELETED)
- (DELETED)
- VENT HEADER HAS FLUSH CAPABILITY
- CONTENTS OF THIS DRAWING ARE DANGEROUS WASTE PERMIT AFFECTING
- (DELETED)
- (DELETED)
- (DELETED)
- AMR-VSL-00003 & -00004 ARE LOCATED IN THE BOF FACILITY.
- THE COMPONENTS SHOWN ON THIS DRAWING IN PHANTOM DO NOT REQUIRE INDEPENDENT QUALIFIED REGISTERED PROFESSIONAL ENGINEER ASSESSMENTS OF DESIGN OR INSTALLATION INSPECTIONS BY A QUALIFIED INSTALLATION INSPECTOR IN ACCORDANCE WITH THE DWP AND/OR WASHINGTON ADMINISTRATIVE CODE REQUIREMENTS.
- THIS REVISION UPDATED NOTE 13 TO COMPLY WITH NEW GUIDANCE. ADDED SYSTEM DESCRIPTION IN REFERENCES. A PERMIT VERSION OF 24590-HLW-M5-V17T-00008 IS NOT PLANNED.

REFERENCES:

- 24590-LAW-3YD-LOP-00001, "SYSTEM DESCRIPTION FOR LOP AND LVP LAW MELTER OFFGAS"
- (DELETED)
- 24590-WTP-M5-V17T-P0001, "PROCESS FLOW DIAGRAM LEGEND & SYMBOLS"
- (DELETED)
- (DELETED)
- (DELETED)
- (DELETED)
- (DELETED)
- (DELETED)
- (DELETED)
- (DELETED)

HOLDS:

- (DELETED)
- (DELETED)



NOTE 7



PLEASE NOTE THAT SOURCE, SPECIAL NUCLEAR AND BYPRODUCT MATERIALS, AS DEFINED IN THE ATOMIC ENERGY ACT OF 1954 (AEA), ARE REGULATED AT THE U.S. DEPARTMENT OF ENERGY (DOE) FACILITIES EXCLUSIVELY BY DOE ACTING PURSUANT TO ITS AEA AUTHORITY. DOE ASSERTS THAT PURSUANT TO THE AEA, IT HAS SOLE AND EXCLUSIVE RESPONSIBILITY AND AUTHORITY TO REGULATE SOURCE, SPECIAL NUCLEAR, AND BYPRODUCT MATERIALS AT DOE-OWNED NUCLEAR FACILITIES. INFORMATION CONTAINED HEREIN ON RADIONUCLIDES IS PROVIDED FOR PROCESS DESCRIPTION PURPOSES ONLY.

2	ISSUED FOR PERMITTING USE	NW	RS	NR	OK	7/24/07
1	ISSUED FOR PERMITTING USE	NW	RH	ORC	RV/JKR	10/11/06
0	ISSUED FOR PERMITTING USE	WFL	RH	SS	KK	01/04/05
REV	DESCRIPTION	ORG	CHKD	RVWD	APVD	DATE

REVISION HISTORY

PROJECT No.	24590	RIVER PROTECTION PROJECT
SITE	HANFORD	WASTE TREATMENT PLANT
AREA	200E	2435 STEVENS CENTER PLACE
BUILDING No.	20	RICHLAND, WA 99354
BY	DATE	CONTRACT No.
ORIGINATOR	WILLIAM F. LENZKE III	DE-AC27-01RV14136
CHECKER	ROBERT HANSON	
APPROVER	KEN RHANEY	
REVIEWER	SEAN SWEENEY	
CONTENT APPLICABLE TO ALARA?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	SCALE
ADR NO.	N/A	NTS
SAFETY SCREEN REQUIRED?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	24590-LAW-M5-V17T-P0010
SAFETY SCREEN IS REQUIRED FOR DRAWING TYPES IDENTIFIED IN 24590-WTP-OPF-SREG-002		REV 2

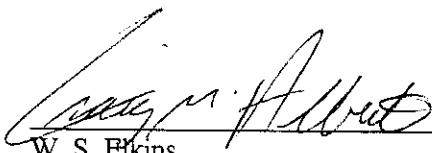
Attachment 2
07-ESQ-133

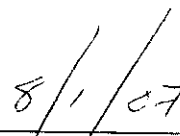
Bechtel National, Inc. Certification Statement

Bechtel National, Inc. Certification

The following certification statement is provided consistent with Contract No. DE-AC27-01RV14136, Section H.26, Environmental Permits, paragraph (g) for the submittal of the Hanford Facility Resource Conservation and Recovery Act Permit Modification Notification Form 24590-LAW-PCN-ENV-07-005.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.


W. S. Elkins
for Project Director


Date